

# Recycling Residential Asphalt Shingles - Roofing Contractors and Waste Hauler Responsibilities



PUB-WA 1228  
2015

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Residential asphalt shingles (RAS) are easy to identify in both roofing tear-off waste and in general construction and demolition (C&D) waste. The licensing requirements for various RAS handling activities may not be as easily identified.

Multiple handling steps are required to produce RAS meeting hot mix asphalt specifications. Shingle handler licensing establishes minimum standards for appropriately designed, sized, and operated facilities in order to maintain a high quality recycled product.

Roofing contractors and waste haulers may encounter legal liabilities if RAS are delivered to inappropriate facilities. The shingle handlers you bring RAS to for recycling should be able to document that they meet the licensing requirements described in this publication.

**Note:** Wisconsin Administrative codes can be accessed at: [Wisconsin Administrative Codes](http://dnr.wi.gov/topic/demo/shingles.html). For more on facility license and plan review requirements visit <http://dnr.wi.gov/topic/demo/shingles.html> or contact your local DNR Waste Management Specialist.

## Benefits and Concerns about Recycling Residential Asphalt Shingles

RAS are being processed into hot mix asphalt throughout Wisconsin, as an additive to asphalt cement “binder” and mineral aggregate. Recycling RAS saves landfill space, consumes less energy and costs less than virgin materials.

RAS have to be separated from felt, wood, flashing, and other debris and then ground to meet end user specifications. RAS that are pre-sorted or are from residential tear-off projects have less debris. RAS co-mingled with C&D require greater effort to separate out potential contaminants.

Contamination from improper processing can make RAS unusable. For example, some adhesives and mastics in roofing debris may contain **asbestos**, and **lead** may be found in painted wood and siding removed as part of a roofing renovation/repair project.



All RAS handlers require the roofing contractor or waste hauler to confirm the shingles they are delivering are from 4-family or less residential units. If the shingles are from a greater than 4-family unit, asbestos test results for each layer will need to be provided. Flat roof and industrial roofing debris cannot be accepted at any RAS handler.

## Licensing Requirements for Residential Asphalt Shingles Handlers

Requirements for RAS handling depend upon the quantity of shingles on-site, the complexity of handling activity and/or the amount of debris co-mingled with the shingles. All haulers, whether licensed or exempt, must deliver materials to approved or appropriately exempt facilities.

- **Job Site Source Separation:** Sorting shingles from non-shingle material as part of the roofing/demolition project and the storage of these shingles on the project property is not subject to licensing. Roofing contractors or do-it-yourselfers are encouraged to separate RAS from other debris at the job site and place the sorted RAS in separate lugger boxes.
- **Transportation:** Hauling source-separated RAS and/or mixed debris requires a Solid Waste Collection and Transportation Services license under s. NR 502.06, Wis. Adm. Code (WAC). Haulers that handle less than 20 tons per year of solid waste are exempt from licensing; however minimum operational requirements must be met.
- **Storage:** Stockpiling RAS or mixed roofing debris at a property other than the job site, to accumulate sufficient quantities prior to delivery to an appropriate facility requires a Solid Waste Storage Facility license under s. NR 502.05, WAC. Non-job site sorting of shingles from mixed roofing debris to produce clean RAS is allowed at processing and transfer facilities, but not at storage facilities.
- **Transfer:** Combining smaller lugger boxes of RAS into larger boxes, at a property other than the job site, in order to haul the combined RAS to an appropriate facility requires a Solid Waste Transfer Facility license under s. NR 502.07, WAC. Manually separating shingles to produce clean RAS is allowed at a transfer facility provided it is performed in a nuisance free manner while materials are being transferred from the smaller container.
- **Processing:**  
Mixed C&D Processing: C&D recycling facilities require a Solid Waste Processing Facility license under s. NR 502.08, WAC. These facilities are complex operations involving a wide range of handling activities which have potential impacts on human health and the environment.

Roofing Tear-Off Processing: Some operations that recycle only RAS from tear-off projects or production rejects qualify for an exemption from licensing under s. NR 502.08(2)(i), WAC. These small, less complex facilities must produce a ground shingle material that meets their end user's specification, and must obtain a Shingle Processing Exemption Approval from the DNR. The approval identifies the scope of allowed activities, and any conditions the DNR imposed on the operation. Other operations that recycle residential asphalt shingles by sorting out the non-shingle material and then providing the shingles to another processor for grinding are required to have a Solid Waste Processing license under s. NR 502.08, WAC.

**Contact 608/266-2111 or [DNRWasteMaterials@wisconsin.gov](mailto:DNRWasteMaterials@wisconsin.gov) for further information.**

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